DOCUMENT RESUME

ED 263 618 CS 209 459

AUTHOR Clark, Wilma
TITLE Writing to Learn in All Subjects.
INSTITUTION National Council of Teachers of English, Urbana, Ill.
PUB DATE Apr 84
NOTE 5p.; SLATE (Support for the Learning and Teaching of English) Starter Sheet, a publication of the NCTE/SLATE Steering Committee on Social and Political Concerns.
PUB TYPE Collected Works - Serials (022) -- Viewpoints (120)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Content Area Writing; *Critical Thinking; Educational Trends; Guidelines; Higher Education; Program Development; Secondary Education; *Teaching Methods; Writing Evaluation; *Writing Improvement; *Writing Instruction; *Writing Processes; Writing Skills

ABSTRACT

One of a series dealing with current issues affecting language arts instruction, this paper focuses on writing across the curriculum. The paper begins by observing that schools and colleges across the country are developing school-wide writing programs, the purposes of which are to improve writing, to enhance learning of content, and to develop thinking skills. Each of these purposes is then discussed. This is followed by a list of strategies for building a district-wide program of writing in all subjects developed by the American Association of School Administrators in a 1982 critical issues report. The paper concludes by offering five suggestions to teachers wishing to incorporate writing into the study of various subjects: (1) begin by listing the main components of content, as well as the kinds of thinking, the students should learn; (2) design the writing assignment so that it will help students learn and understand clearly what they are expected to do; (3) consider how to help students at various stages of the writing process; (4) in responding to writing, develop methods that encourage students and yet communicate clearly to them about strengths and weaknesses in the writing; and (5) develop efficient methods for handling the paper load. (HOD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
NCTE
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

April 1984

STARTER SHEET

ED263618

SLATE Support for the Learning and Teaching of English

WRITING TO LEARN IN ALL SUBJECTS

Schools and colleges across the country are now beginning to develop school-wide writing programs in which students in all subjects at all grade levels engage in writing as a natural part of learning and thinking. The purposes of such programs are three-fold:

- to improve writing;
- to enhance learning to content;
- to develop thinking skills.

To Improve Writing

The new writing programs have been spurred in large part by incessant efforts over the past two decades to document the need to improve student writing: e.g., the 17-year drop in verbal scores on the Scholastic Aptitude Test, from 478 (out of a possible 800) in 1963 to 424 in 1980; the dire reports (1969-79) of the National Assessment of Educational Progress (NAEP) that up to 30% of students aged 9, 13, and 17 have "extremely serious" problems with writing; the 1983 report of the National Commission on Excellence in Education (*A Nation at Risk*), which, among its recommendations for improving the content of high school education, placed highest priority on development of the ability to use language; the 1983 report by the Carnegie Foundation for the Advancement of Teaching (*High School: A Report on Secondary Education in America*, Harper & Row) which named English as "the first and most essential goal of education" for *all* students and which called writing "the most neglected formal skill in education."

It stands to reason that if students are to learn to write, they need practice. And yet, after extensive research, Arthur N. Applebee reported in *Writing in the Secondary School* (NCTE, 1981) that short-answer and fill-in-the-blank exercises, along with note-taking, comprise most of the writing done by high school students in all subjects. On the average, only three percent of homework assignments or class time is devoted to the writing of a paragraph or longer.

English teachers, of course, bear primary responsibility for *teaching* writing, including skills such as invention, focus, organization, revision, proofreading, and control of syntax, diction, usage, and mechanics. But other teachers throughout the school could frequently assign tasks in which students *use* writing to learn content and clarify thoughts. English teachers can not do the job alone–for at least two reasons:

- Skills learned in English class and never used beyond will quickly atrophy.
- If no one except the English teacher expects good writing, students get a clear message that writing is not important (and commonly resist work on writing even in English class).

On the other hand, when teachers throughout the school regularly assign writing to reinforce content, writing becomes a natural part of learning for students. With increased practice in using writing to solve real learning problems, students can experience the happy by-product of increased writing skill.

For reasons such as these, NCTE affirmed in a 1983 resolution "the position that students should write frequently in every course as a way of learning the subject matter and of sharpening their writing skills." Therefore, NCTE is now seeking ways "to provide assistance to teachers of other subject matter disciplines in their efforts to improve students' writing skills in all subject matter fields."

To Enhance Learning of Content

In emphasizing the *process* of writing (prewriting, writing, revising), researchers and teachers note many ways in which writing strengthens learning. Prewriting activities, as well as various kinds of informal writing, have been found especially useful for learning. In lists, notes, learning log entries, informal sketches written to focus thought in class–the student writes freely to probe ideas, ask questions, draw connections. The purpose is not to form carefully edited prose meant to communicate to someone else, but rather to write to oneself, to "think aloud on paper," as James Britton put it.

Researching the writing of British school children in the 1960s, Britton contrasted functions of three types of writing: *transactional*–writing to inform or persuade others as in reports, proposals, essay tests; *poetic*–writing to create artistic

Share These Materials

SLATE *Starter Sheets* are offered as resources for dealing with current issues affecting the teaching of English language arts. SLATE contributors, NCTE members, affiliate leaders and others who receive such materials are invited to reproduce these materials for wider distribution (to administrators, school boards, colleagues in other disciplines, journalists, etc.) to help promote better understanding of the goals of English teaching.

CS209459

NCTE
National Council of Teachers of English
1111 Kenyon Road, Urbana, Illinois 61801

BEST COPY AVAILABLE

effect; *expressive*–writing to figure things out. Expressive writing, teachers in all subjects are discovering, can be an efficient tool for thinking about content–one which, importantly, creates little or no paper load for the teacher. Expressive writing in its myriad forms can be found at the heart of most writing-across-the-curriculum programs across the United States. Following is a sampling of sources detailing practical applications of expressive writing to promote learning in various subjects:

Ann E. Berthoff, *The Making of Meaning: Metaphors, Models, and Maxims for Writing Teachers*, Boynton/Cook, 1981.

Toby Fulwiler, "The Personal Connection: Journal Writing across the Curriculum," in *Language Connections*, ed. Fulwiler and Art Young, NCTE, 1982.

John S. Mayher, Nancy B. Lester, and Gordon M. Pradl, "Writing to Learn across the Curriculum," Ch. 5 in *Learn to Write/Writing to Learn*, Boynton/Cook, 1983.

James Moffett, *Active Voice: A Writing Program across the Curriculum*, Boynton/Cook, 1981.

Judy Salem, "Using Writing in Teaching Mathematics," in *What's Going On? Language Learning Episodes in British and American Classrooms, Grades 4-13*, ed. Mary Barr, Pat D'Arcy, and Mary K. Healy, Boynton/Cook, 1982.

Anne Miller Wotring and Robert Tierney, *Two Studies of Writing in High School Science*, Classroom Research Study No. 5, Bay Area Writing Project, School of Education, University of California–Berkeley, 1981.

The processes of writing and revising more formal essays and reports have also been found to reinforce learning of content. When students write about content, organizing it for themselves, they understand it better and remember it longer. For this reason, Janet Emig contends, "Writing represents a unique mode of learning" ("Writing as a Mode of Learning," *College Composition and Communication*, May 1977, pp. 122-28). In emphasizing the "heuristic value of composing," Angela Dorenkamp writes, "it is the search for language, the struggle to name, which often leads to discovery of new ideas, new relationships, new patterns" (quoted in *Pennsylvania Writing Project Newsletter*, Fall 1983). The critiquing and revising of drafts also provides a fertile time for learning: students reconsider content as they evaluate the accuracy of data and clarity of ideas in one another's writing. When students write and revise, they gain control of the content and make it their own.

To Develop Thinking Skills

Perhaps NAEP's most significant discovery in the 1970s was that the deterioration in writing skills of youth manifested itself *not* primarily in increased numbers of mechanical errors such as misspellings or awkward sentences, but rather in an alarming decline in the ability of writers to think well–to analyze major and minor points, to compare and contrast, to draw inferences, to evaluate data. Experts who reviewed student writing collected by NAEP recommended that teachers in all disciplines be trained to use writing to teach problem-solving and critical thinking (*Reading, Thinking, and Writing: Results from the 1979-80 Assessment of Reading and Literature*, NAEP, 1860 Lincoln St., Denver, Colo. 80295).

The particular power of writing to teach thinking has been underscored by many educators. In researching the difficulties that adolescents have in moving from description of concrete experience to analysis of abstract ideas, Janice Hays cites Jean Piaget's suggestion that the move is "by no means automatic." Although certain levels of cognitive maturity are prerequisite, analytic reasoning will not develop unless learners "interact with an environment that demands such reasoning" ("The Development of Discursive Maturity in College Writers," in *The Writer's Mind: Writing as a Mode of Thinking*, ed. Janice Hays, et al., NCTE, 1983). Writing assignments which challenge students to think can provide a most efficient environment for developing latent reasoning ability. This point is stressed in the 1983 Carnegie reports on high school education: "Clear writing leads to clear thinking. Clear thinking is the basis of clear writing. Perhaps more than any other form of communication, writing holds us responsible for our words and ultimately makes us more thoughtful human beings."

For reasons explained above, writing workshops for teachers in all subjects are now emphasizing the careful design of writing assignments–so that instructions for clearly defined thinking processes are central in writing tasks. Through such emphasis the workshops are also focusing on elements of instruction called for in *Essentials of English*, a statement endorsed by NCTE in 1982 which affirms the importance of teaching creative, logical, and critical thinking skills:

> The ability to analyze, classify, compare, formulate hypotheses, make inferences, and draw conclusions is essential to the reasoning processes of all adults. The capacity to solve problems, both rationally and intuitively, is a way to help students cope successfully with the experience of learning within the school setting and outside.

STRATEGIES FOR BUILDING A DISTRICT-WIDE PROGRAM OF WRITING IN ALL SUBJECTS

The American Association of School Administrators, in a 1982 "critical issues report" on *Teaching Writing: Problems and Solutions*, outlined ingredients of successful writing programs:

- Cooperative effort from all elements of the school community, including administrators, teachers, school board, parents. Although administrators must provide leadership in written policy statements and commitments of money and staff, the development of the program itself must be done by teachers. As one superintendent put it, "A writing program cannot be one that comes down from on high. There must be commitment in the ranks." Parents and school board members must be informed of the purposes behind changing methods in the teaching of writing.
- Evaluation of the current situation through assessment of student writing throughout the district.
- Development of a consistent, sequential writing program in all subjects, K-12, based on current research and effective practices.
- A realization that it takes *time* to build a writing program. School districts must be prepared for a "three- to five-year venture," according to Paul Eschholz, director of the Vermont Writing Program.
- Effective inservice training and follow-up. Administrators have found it more effective not to force all teachers to attend the inservice training, but rather to begin with volunteers, whose enthusiasm and success in improving student writing will convince other teachers to participate.

BEST COPY AVAILABLE

STRATEGIES FOR TEACHERS WISHING TO INCORPORATE WRITING INTO THE STUDY OF VARIOUS SUBJECTS

The following kinds of suggestions to teachers have been developed in inservice workshops on writing across the curriculum (WAC).

1. Begin by listing the main components of content, as well as the kinds of thinking, you want your students to learn. Then from the many different kinds of writing (brief reports, long research papers, short analyses, journals, learning logs, essay tests, letters, five minutes of freewriting on a half sheet of paper, etc.), choose a form that will help your students master the central concepts in your class.

   Example: A fifth grade social studies teacher wanted the class to learn what life was like in the Jamestown colony. She asked each student to select one Jamestown citizen (e.g., a farmer, a glass blower, Pocahontas) and, after researching the topic in the library, to role-play by writing daily entries in the journal of the chosen person. (Thinking skills: knowledge of facts, analysis of pertinent information from library reading, understanding of another culture through imaginative identification with one of its inhabitants, synthesis in creating the journal entries.)

   Example: A high school chemistry teacher wanted his students not only to memorize but also to comprehend. Each Monday he gave his class a short list of concepts (e.g., covalent bond, oxidation, radioactivity) that they were to prepare to explain in writing during class on Friday. Students were encouraged to study together, to make notes, and to bring the notes for use on Friday, when *one* of the topics would be drawn for a 10-minute in-class writing. The writing task asked students (working sometimes individually and sometimes in pairs or small groups) to define the term, and to give and *explain* an example.

   Example: In a first aid unit in a health class, the teacher knew that his students needed to practice quick thinking and problem solving in emergencies. On several occasions in class he provided a dittoed paragraph describing an emergency. (The child, lying near an open bottle of aspirin, is vomiting. . . . What would you do?) Students wrote rapidly and then, after small- and large-group discussion, evaluated their responses.

   Example: An economics professor wanted the students in her seminar to learn to apply theory when evaluating solutions to economic problems. She assigned a semester-long research paper, asking students to evaluate the economic policies being used to solve problems in a developing Third World country. She divided the project into parts (due at three- and four-week intervals) with writers receiving peer and/or instructor feedback at each stage of the writing project: project proposal, bibliography, draft, final paper. In exchanging ideas with others at each stage of the process, students had ample opportunity to think and rethink about the topic.

2. Design the writing assignment carefully, so that (a) it will, in fact, help students learn, and (b) students will understand clearly what they are expected to do.

   Use a verb which specifies the thinking process at the center of the writing task (e.g., *list, compare, summarize, evaluate*). Be sure the students understand what the verb is asking them to do.

   Clarify the writer's purpose and the audience for this writing.

   Specify the criteria (three or four most important traits) by which you will evaluate the writing. Evaluation—by the writer, by peers responding to a draft, by the teacher marking the final paper—will proceed more efficiently at all stages of the writing if criteria have been listed clearly in the assignment.

   At the time the assignment is given, provide samples of good and weak student papers received from similar assignments in the past.

3. Consider how to help students at various stages of the writing process—prewriting, writing, peer critiquing, revising, editing, and proofreading. (Sources are selected to represent the kinds of material available to help teachers. No attempt has been made, here or elsewhere in this report, to provide a complete bibliography.)

   Linda Flower, *Problem-Solving Strategies for Writing*, Harcourt Brace Jovanovich, 1981 (a textbook).

   Donald Graves, *Writing: Teachers & Children at Work*, Heineman, 1983 (especially for the elementary level).

   Donald Murray, *A Writer Teaches Writing*, Houghton Mifflin, 1968; *Write to Learn*, Holt, Rinehart and Winston, 1984 (a textbook).

   Barbara E. Fassler Walvoord, *Helping Students Write Well*, Modern Language Association of America, 1982.

4. In responding to writing, develop methods that encourage students and yet communicate clearly to them about strengths and weaknesses in the writing.

   Charles R. Cooper and Lee Odell, *Evaluating Writing*, NCTE, 1977.

   Dan Kirby and Tom Liner, Ch. 14, "Grading and Evaluating," in *Inside Out: Developmental Strategies for Teaching Writing*, Boynton/Cook, 1981.

   Peter Schiff, "Responding to Writing: Peer Critiques, Teacher-Student Conferences, and Essay Evaluation," in *Language Connections: Writing and Reading across the Curriculum*, ed. Toby Fulwiler and Art Young, NCTE, 1982.

5. Develop efficient methods for handling the paper load.

   In journals and other kinds of expressive writing, little or no teacher time is required for marking.

   Breaking a long writing project into parts, and providing students help during each part, improves the quality of final papers and thus reduces marking time.

   Students can be taught to help one another during the drafting and revising stages of writing. Peer critiquing has been found most effective in (a) transferring responsibility for good writing from the teacher to the *students*, (b) in promoting students' review of content as papers are discussed, and (c) in greatly reducing the time teachers spend in commenting on papers.

   (elementary) Marion Crowhurst, "The Writing Workshop: An Experiment in Peer Response to Writing," *Language Arts*, October 1979, pp. 757-762.

   (elementary) Connie Russell, "Putting Research into Practice: Conferencing with Young Writers," *Language Arts*, March 1983, pp. 333-340.

   (secondary) Mary K. Healy, *Using Student Writing Response Groups in the Classroom*, Bay Area Writing Project, University of California-Berkeley, 1980.

   (college) Wilma Clark, et al., "Use of Peer Critiquing to

Improve Student Writing," (in English, psychology, economics, and secondary education), *Wisconsin Dialogue*, Spring 1983 (University of Wisconsin-Eau Claire, Eau Claire, Wis. 54701).

SELECTED SOURCES NOT MENTIONED IN THE TEXT ABOVE

James Britton, et al., *The Development of Writing Abilities*, Schools Council Research Studies, London, 1975; rpt. NCTE, 1977.

Nancy Martin, et al., *Writing and Learning across the Curriculum 11-16*, Schools Council Project, University of London Institute of Education, 1976.

Patricia Stock, ed., *fforum: Essays on Theory and Practice in the Teaching of Writing*, Boynton/Cook, 1983. (A collection of *fforum* essays published at the University of Michigan by the English Composition Board which has developed WAC programs at the university and in schools throughout Michigan. For information call Fran Zoren, Coordinator of Writing, 313-764-0429.)

Stephen N. Tchudi and Susan J. Tchudi, *Teaching Writing in the Content Areas: Elementary School*, NEA/NCTE, 1983.

Stephen N. Tchudi and Margie C. Huerta, *Teaching Writing in the Content Areas: Middle School/Junior High*, NEA/NCTE, 1983.

Stephen N. Tchudi and Joanne Yates, *Teaching Writing in the Content Areas: Senior High School*, NEA/NCTE, 1983.

Robert Weiss, "Writing in the Total Curriculum: A Program for Cross-Disciplinary Cooperation," in *Eight Approaches to Teaching Composition*, ed. Timothy R. Donovan and Ben W. McClelland, NCTE, 1980.

NATIONAL WAC NETWORKS

Information regarding WAC leaders in all parts of the country is available from the following:

James Gray, founder of the Bay Area Writing Project and coordinator of the National Writing Project, comprised of more than 90 sites throughout the United States. Tolman Hall, School of Education, University of California, Berkeley, Calif. 94270. (Phone: 415-642-0963).

Elaine Maimon, national leader in developing writing across the curriculum. Beaver College, Glenside, Pa. 19038. (Phone: 215-572-2964).

Chris Thaiss, editor of the *Network of Writing-across-the-Curriculum Programs* directory, Northern Virginia Writing Project, George Mason University, 4400 University Drive, Fairfax, Va. 22030.

Wilma Clark
(for the NCTE/SLATE Steering Committee)